



RECONSTRUCTED AND RENDERED IMAGE

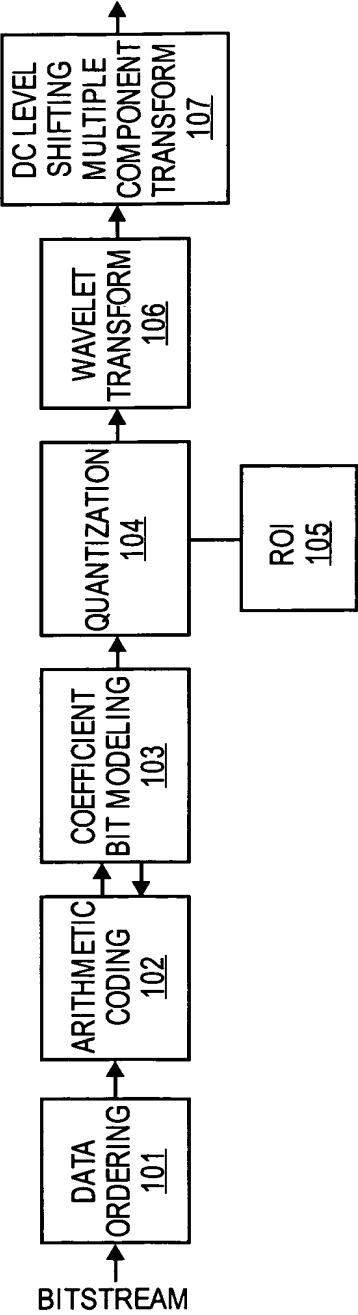


FIG. 1
(PRIOR ART)

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SP 0	SP 4	C 8	C 12	C 16	C 20	C 24	C 28
R 1	SP 5	C 9	C 13	C 17	C 21	C 25	C 29
R 2	SP 6	SP 10	SP 14	SP 18	C 22	C 26	C 30
SP 3	SP 7	R 11	R 15	SP 19	C 23	C 27	C 31
C 32	SP 36	SP 40	SP 44	SP 48	C 52	C 56	C 60
C 33	C 37	C 41	C 45	C 49	C 53	C 57	C 61
C 34	C 38	C 42	C 46	C 50	C 54	C 58	C 62
C 25	C 39	C 43	C 47	C 51	C 55	C 59	C 63

FIG. 2A
(PRIOR ART)

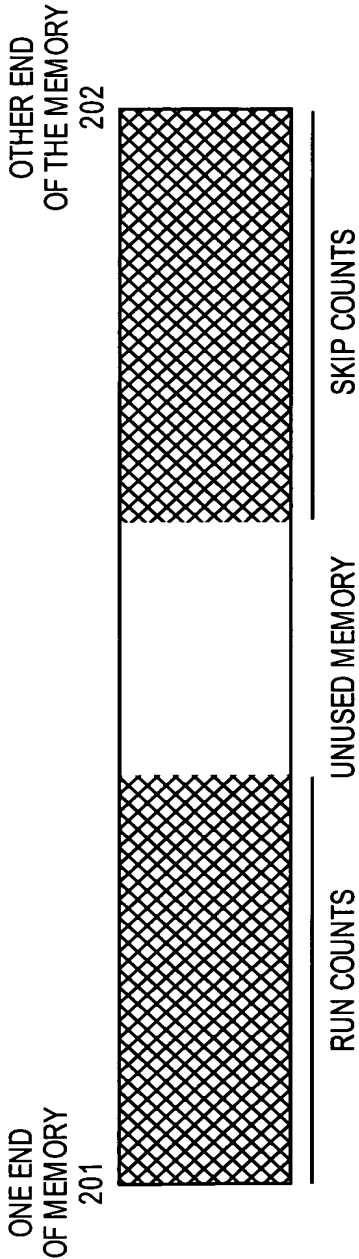


FIG. 2B

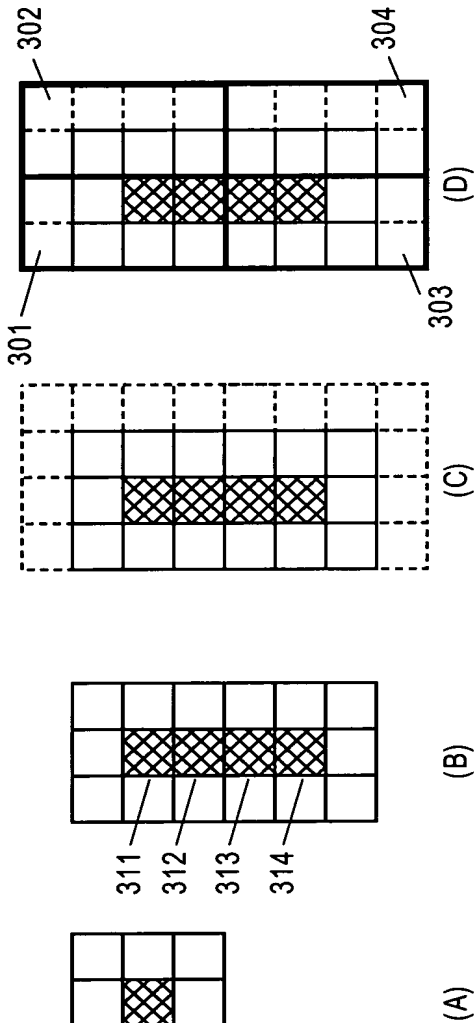


FIG. 3

	0	1	2	3	4	5	6	7				
0	A		B		A		B		A		B	
1	C		D		C		D		C		D	
2	A		B		A		B		A		B	
3	C		D		C		D		C		D	
0	A		B		A		B		A		B	

FIG. 4

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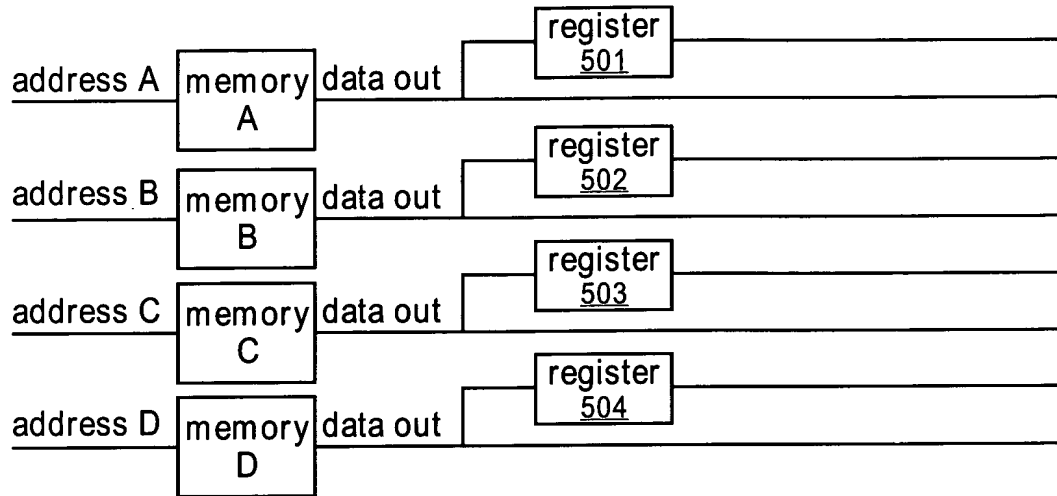


FIG. 5

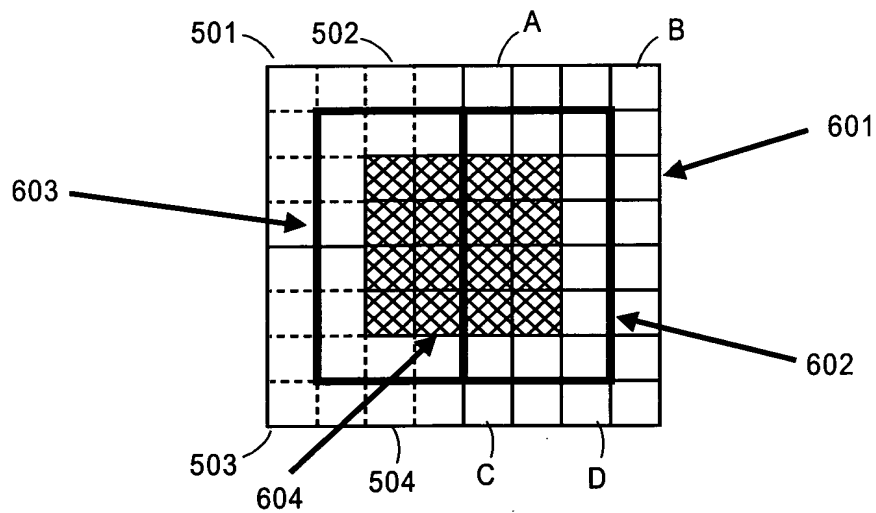


FIG. 6

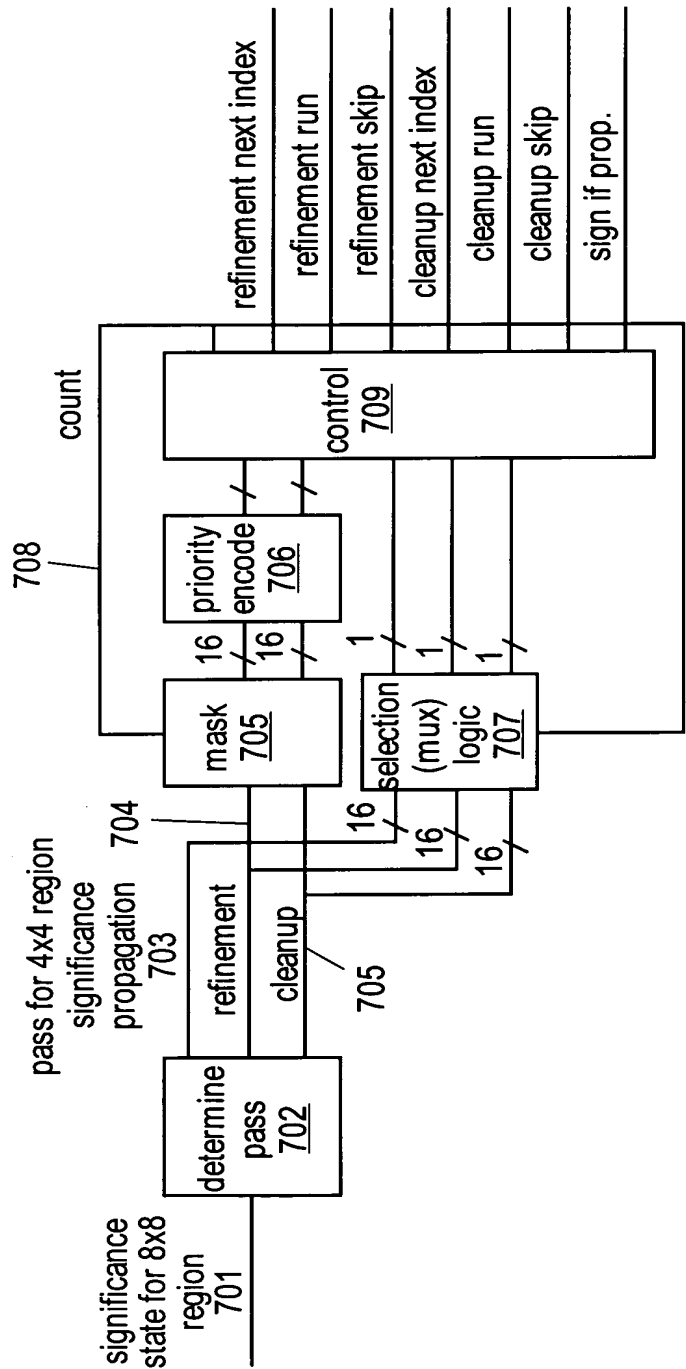


FIG. 7

SP pass: 10*2 for SP pass coefficients
6 for C and R pass coefficients
C pass: 4*2 for C pass coefficients
R pass: 2 for R pass

total: 36 clocks = 2.25 clocks per coefficient

SP	SP	SP	SP
C	C	C	C
SP	SP	SP	SP
SP	R	R	SP

SP = significance propagation
C = cleanup
R = refinement

FIG. 8

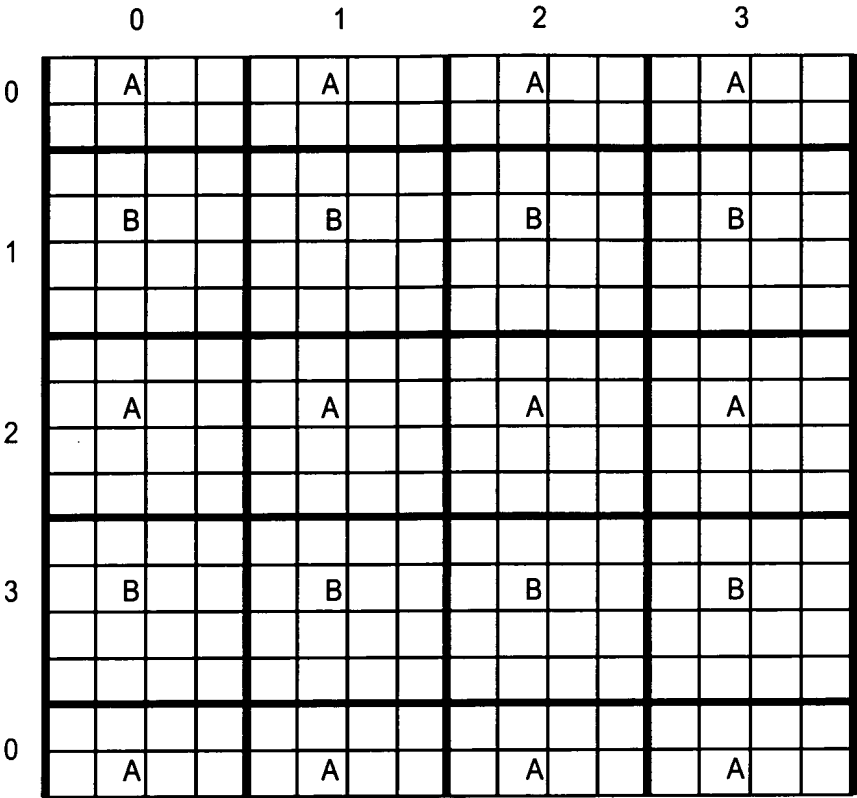


FIG. 9

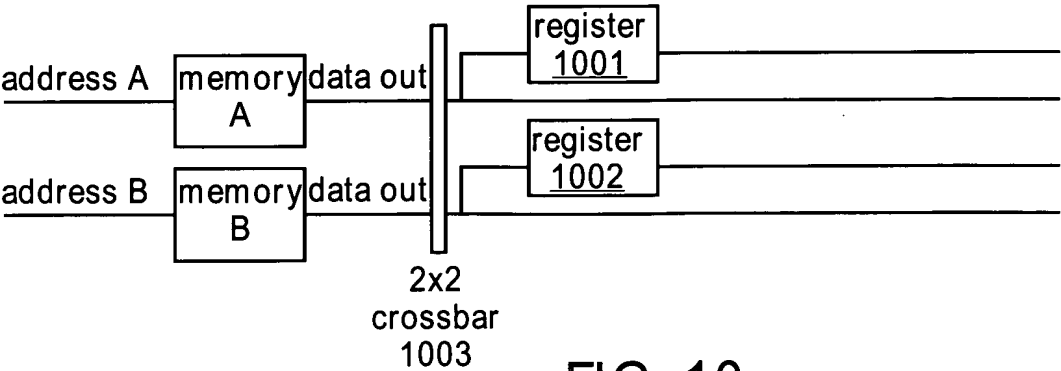


FIG. 10

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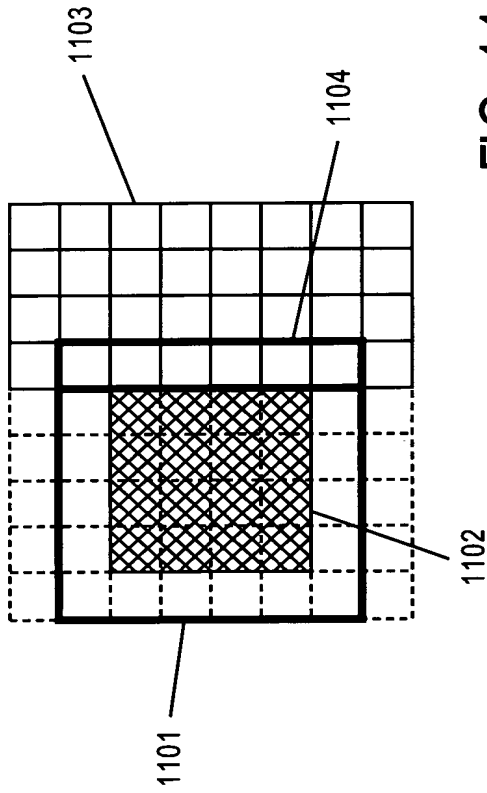


FIG. 11

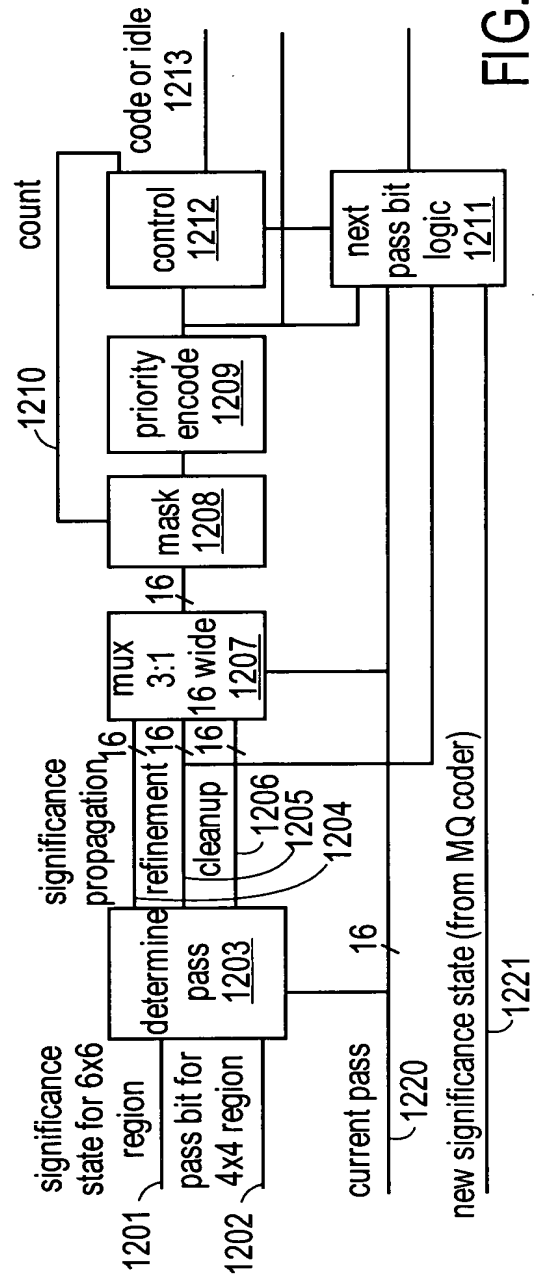


FIG. 12

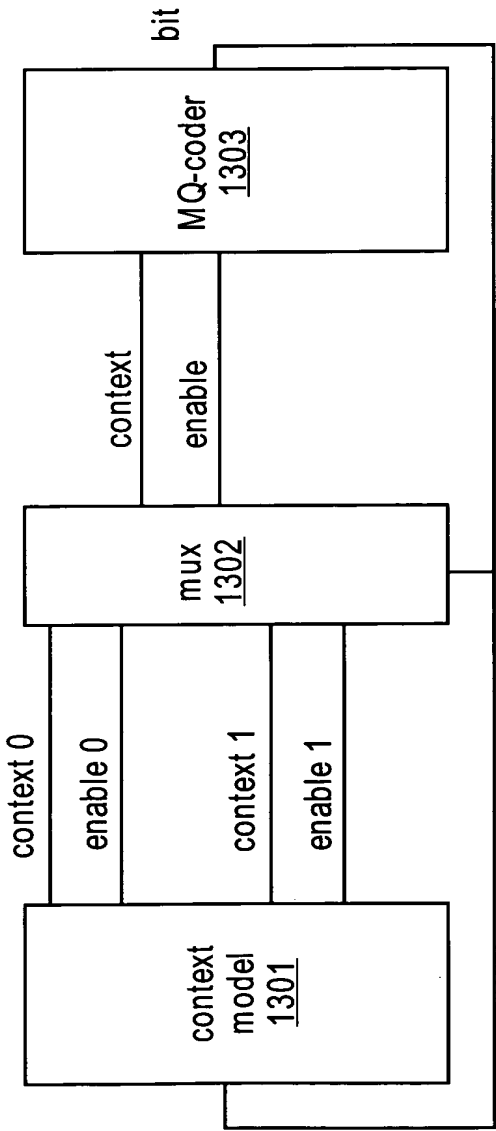


FIG. 13

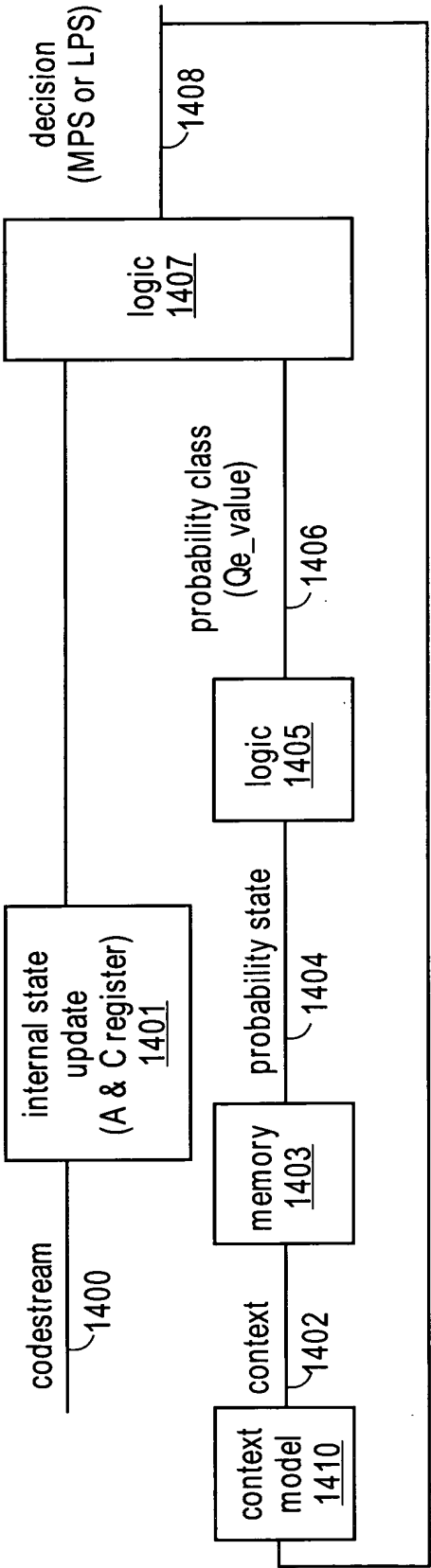


FIG. 14A

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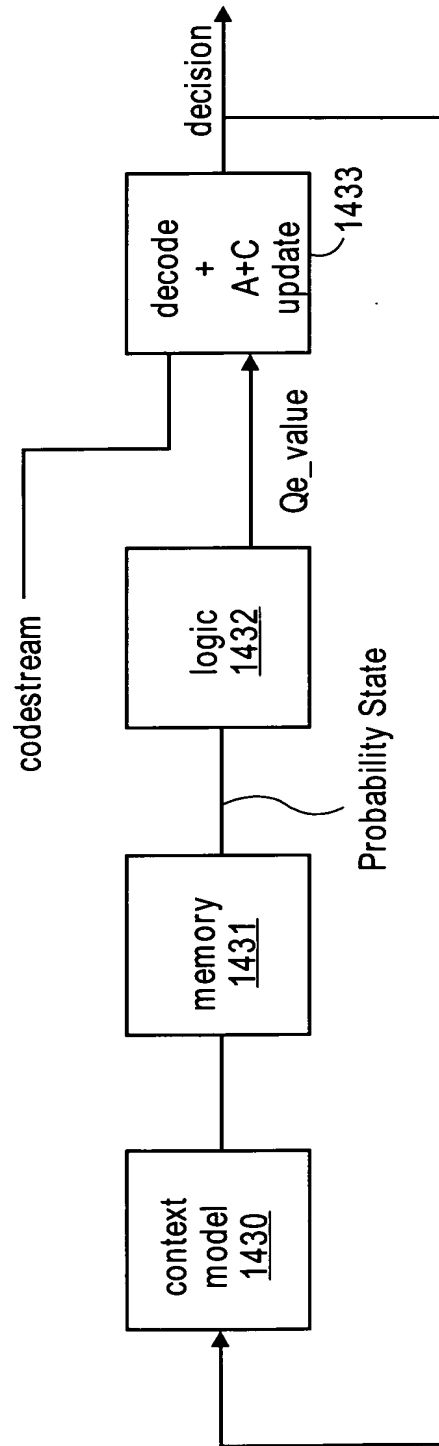


FIG. 14B

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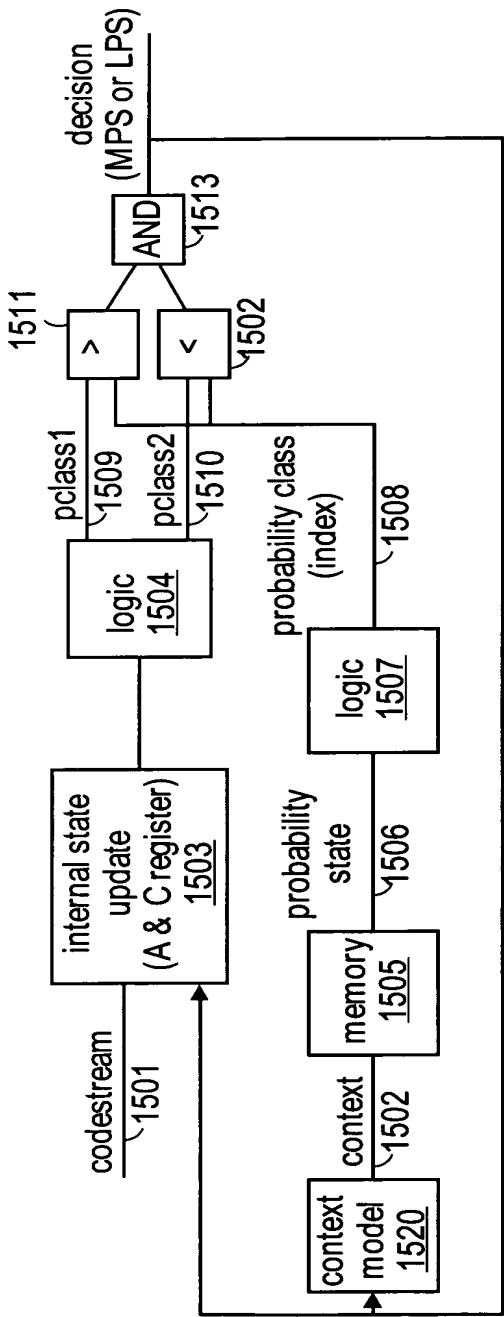


FIG. 15

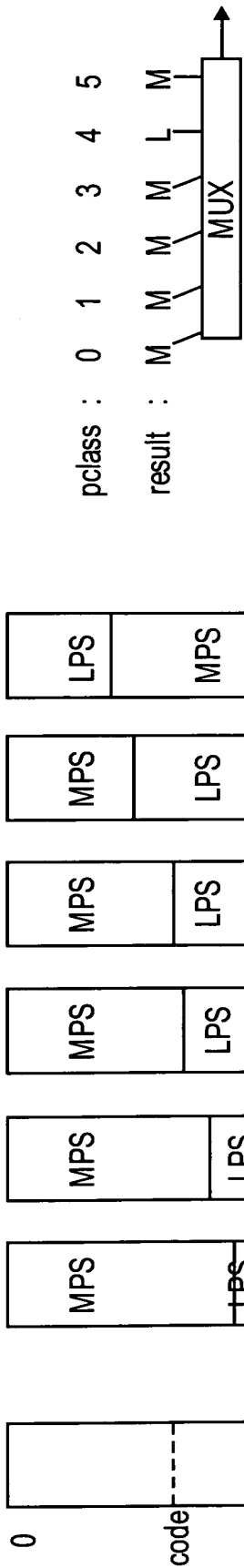


FIG. 16B

FIG. 16A

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5MPS
4 MPS
3 MPS
2 MPS
1 MPS
LPS

FIG. 17

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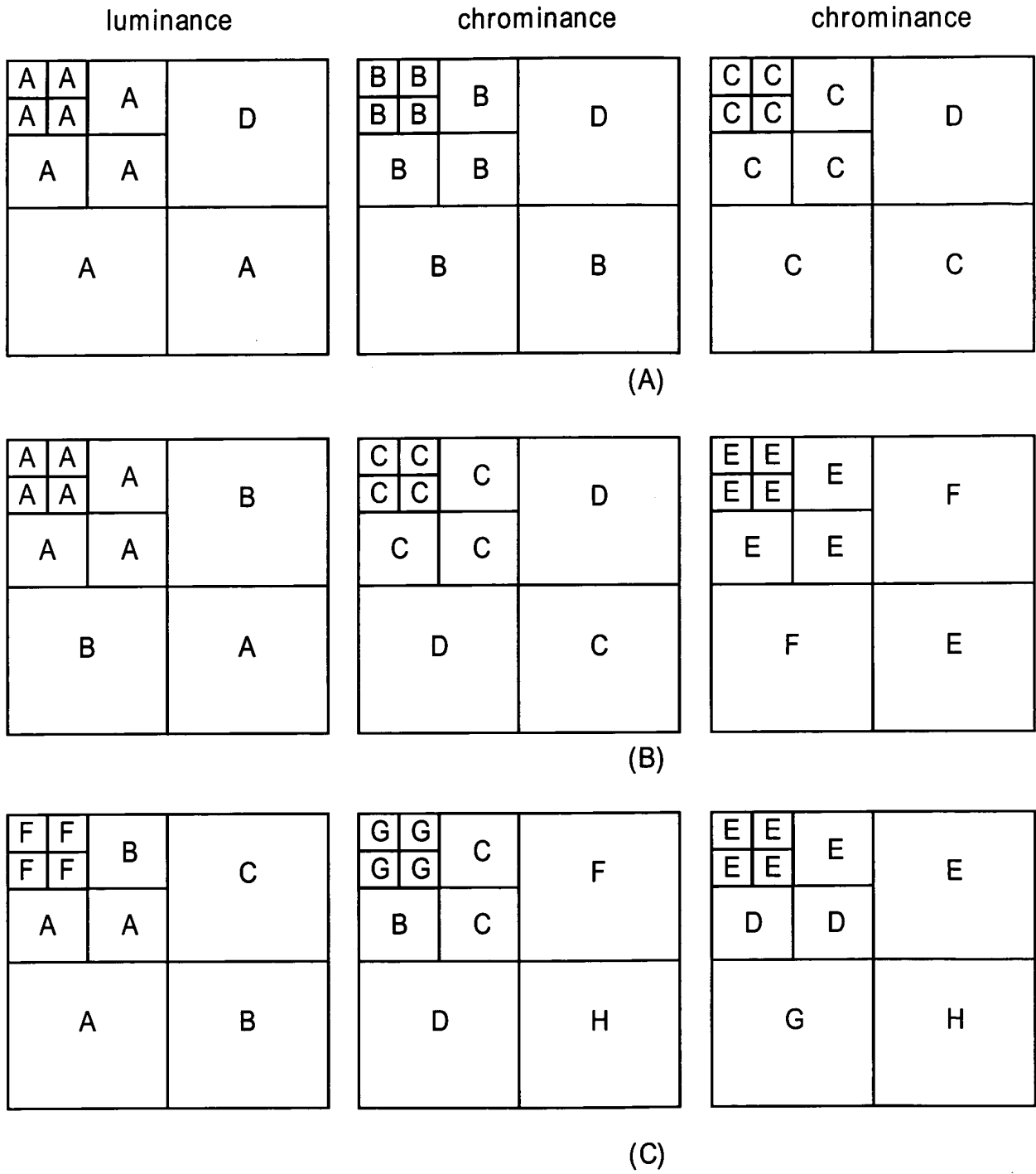


FIG. 18

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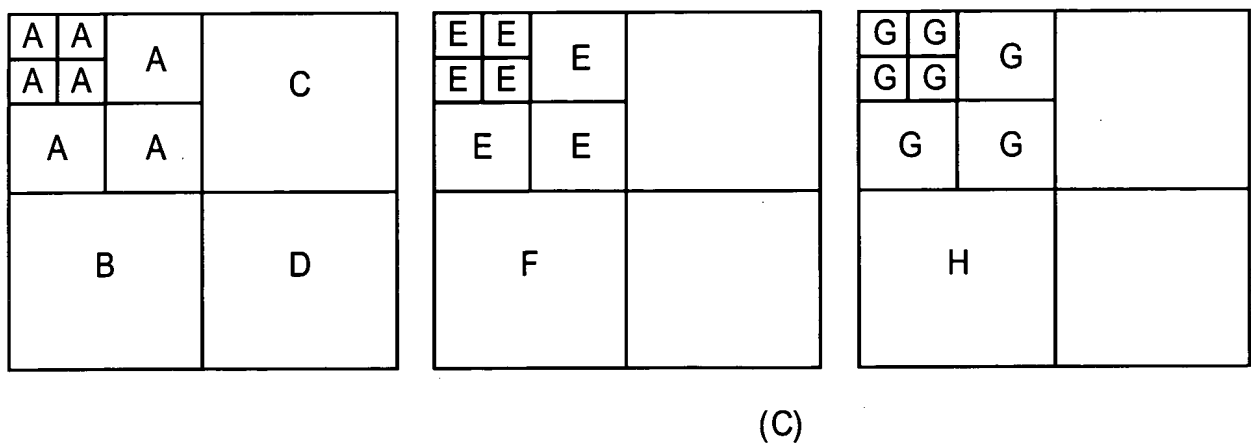
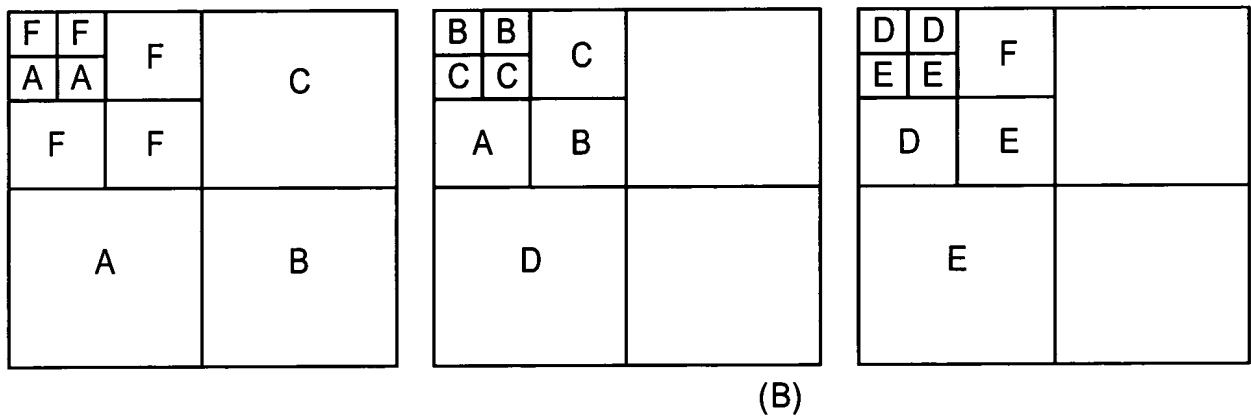
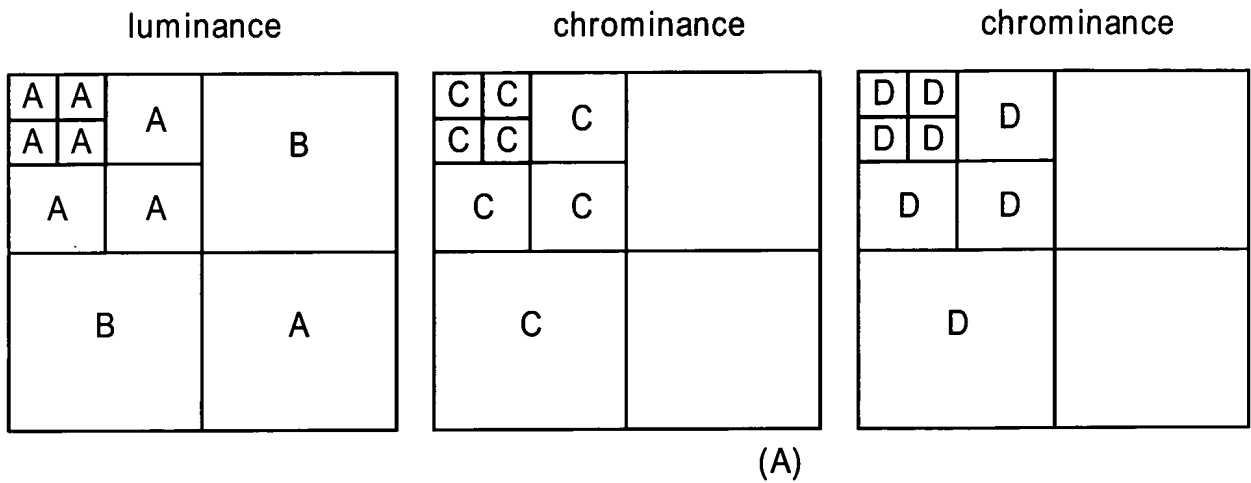


FIG. 19

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luminance				chrominance				chrominance						
A	A	D	C	B	B	D		C	C	D				
A	A			B	B			C	C					
D		A		D		B		D		C				
A														

(A)

A	A	A	C
A	A		
A		A	
B			
D			

E	E	E	
E	E		
E		E	

F	F	F	
F	F		
F		F	

(B)

A	A	H	E	F	F	H		G	G	H				
A	A			F	F			G	G					
B		A		B		F		B		G				
C														

(C)

FIG. 20

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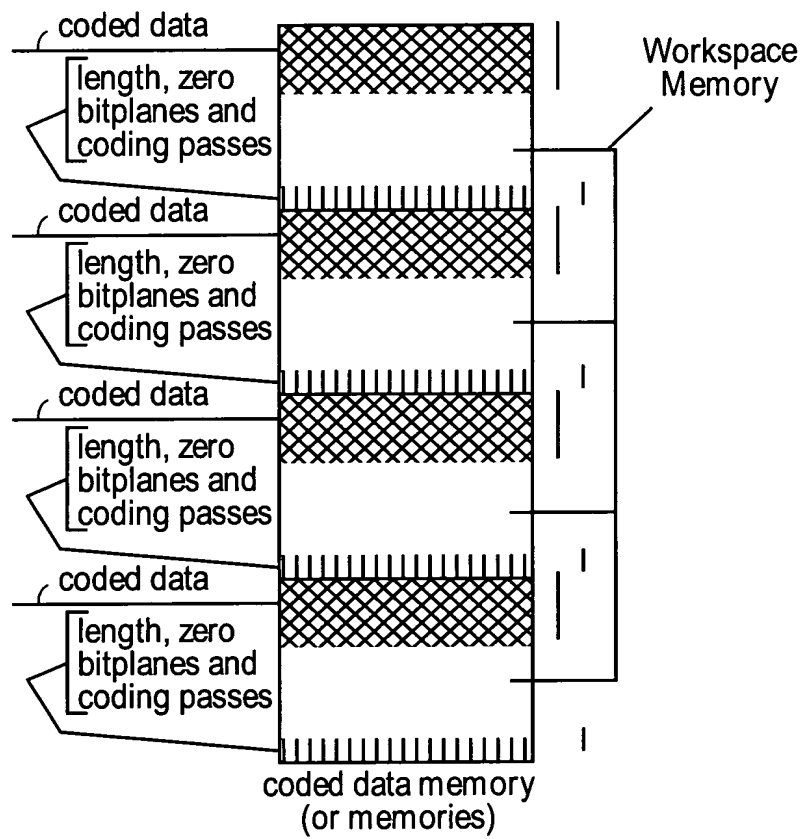
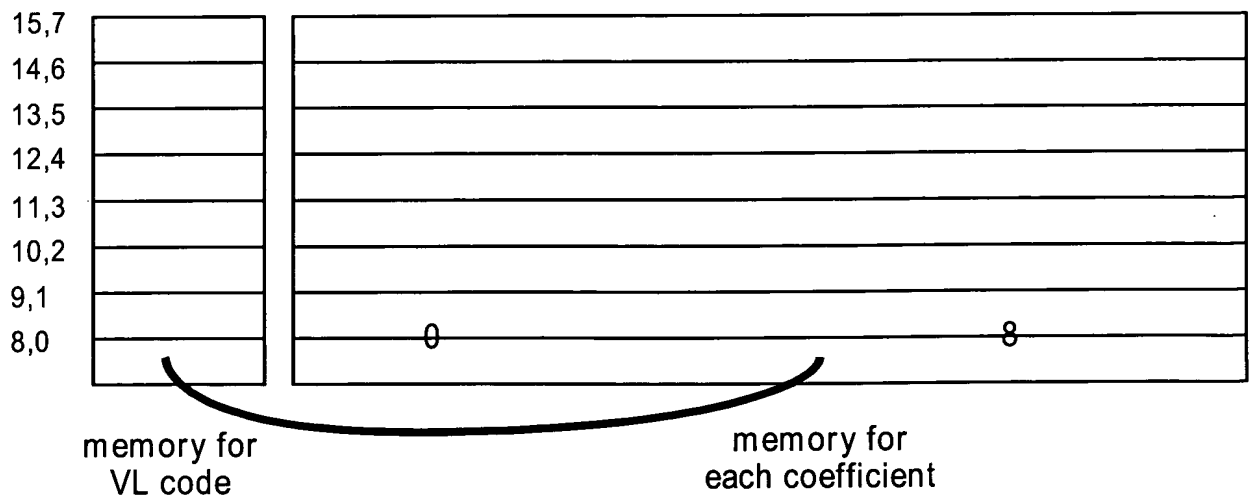
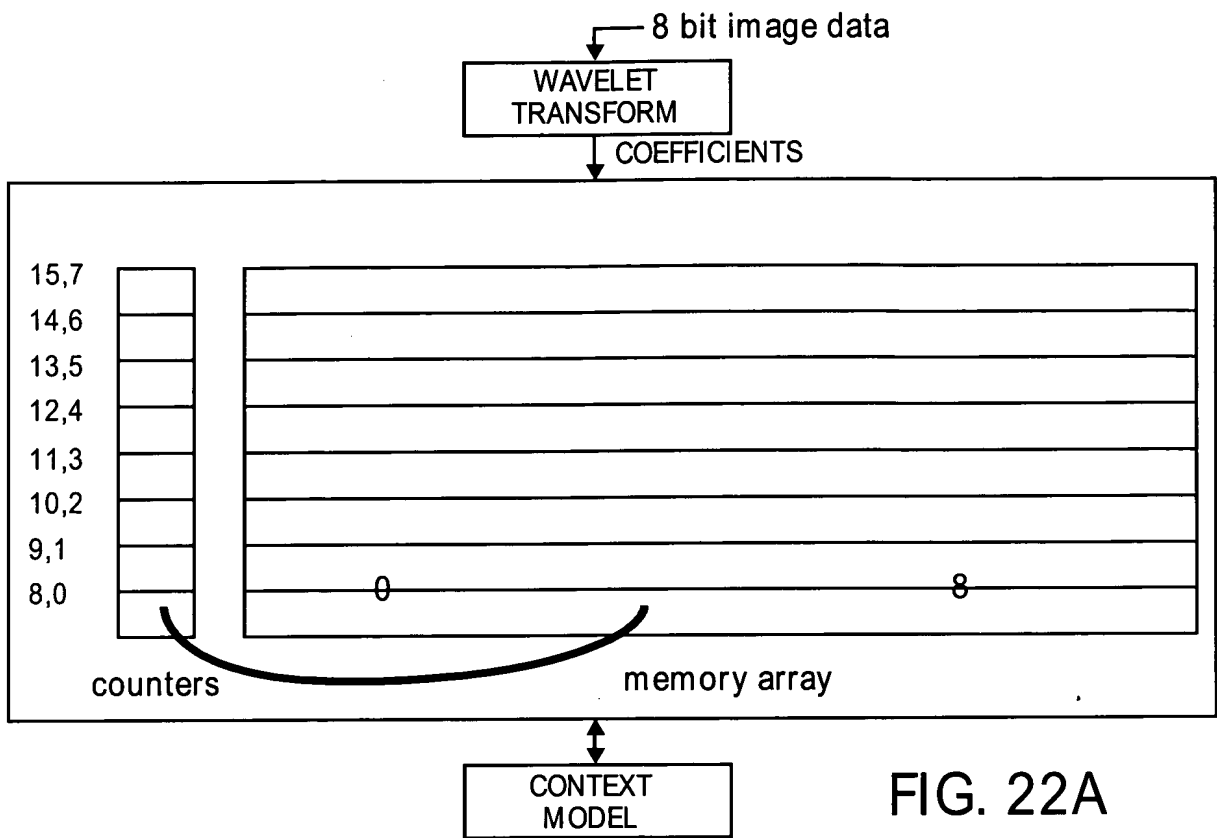


FIG. 21

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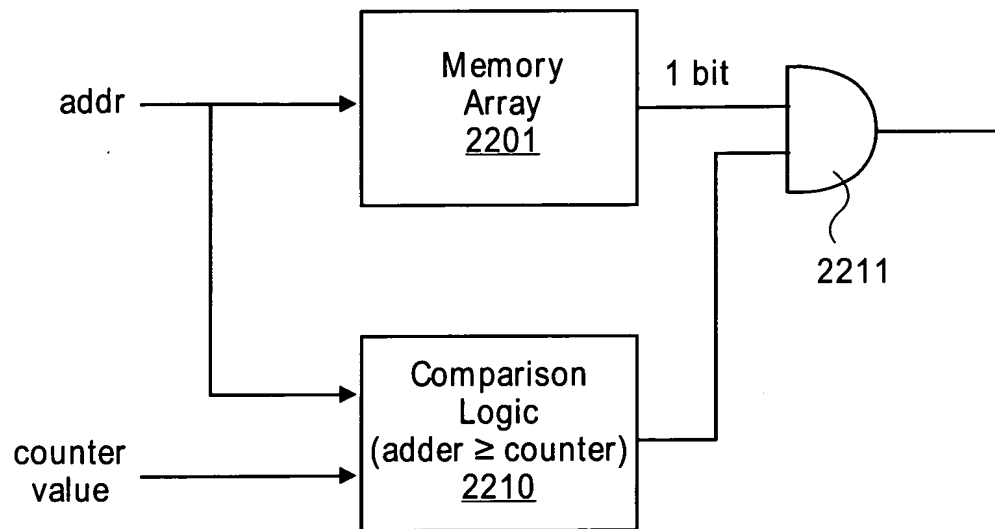
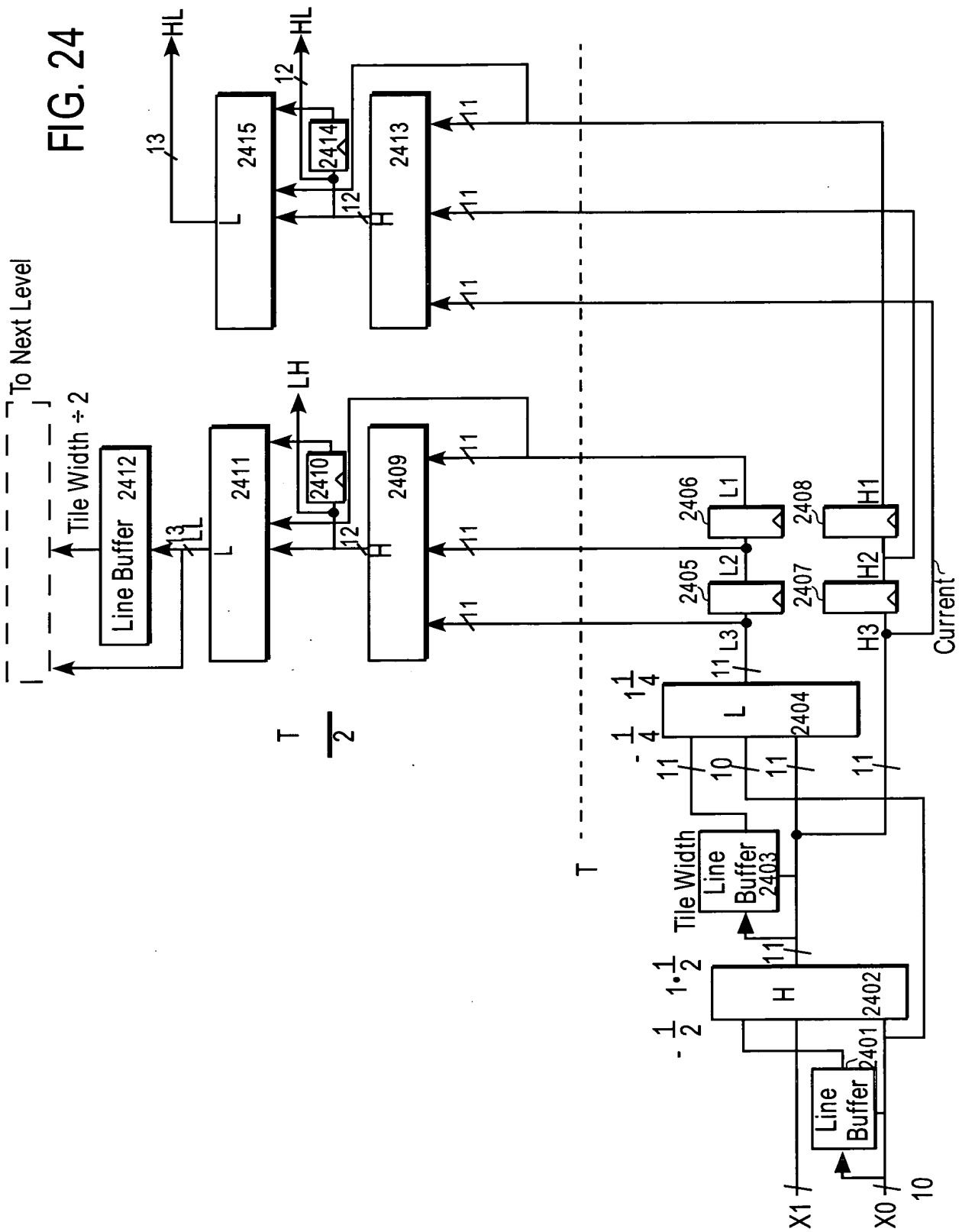


FIG. 22B

FIG. 24



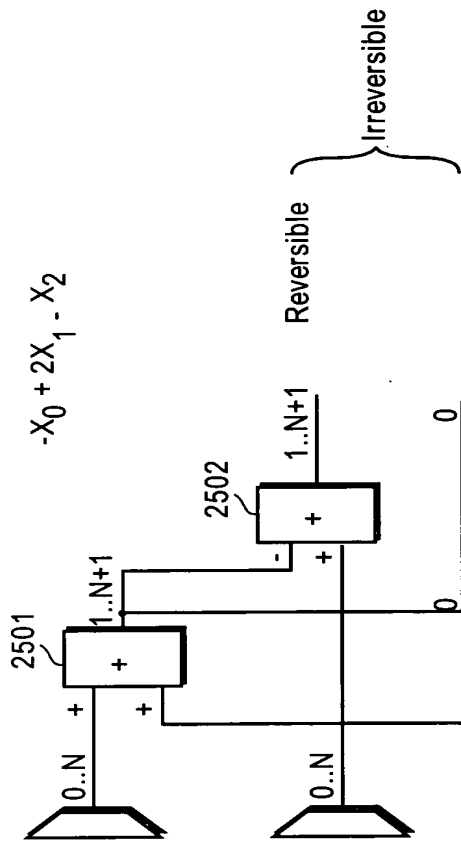


FIG. 25A

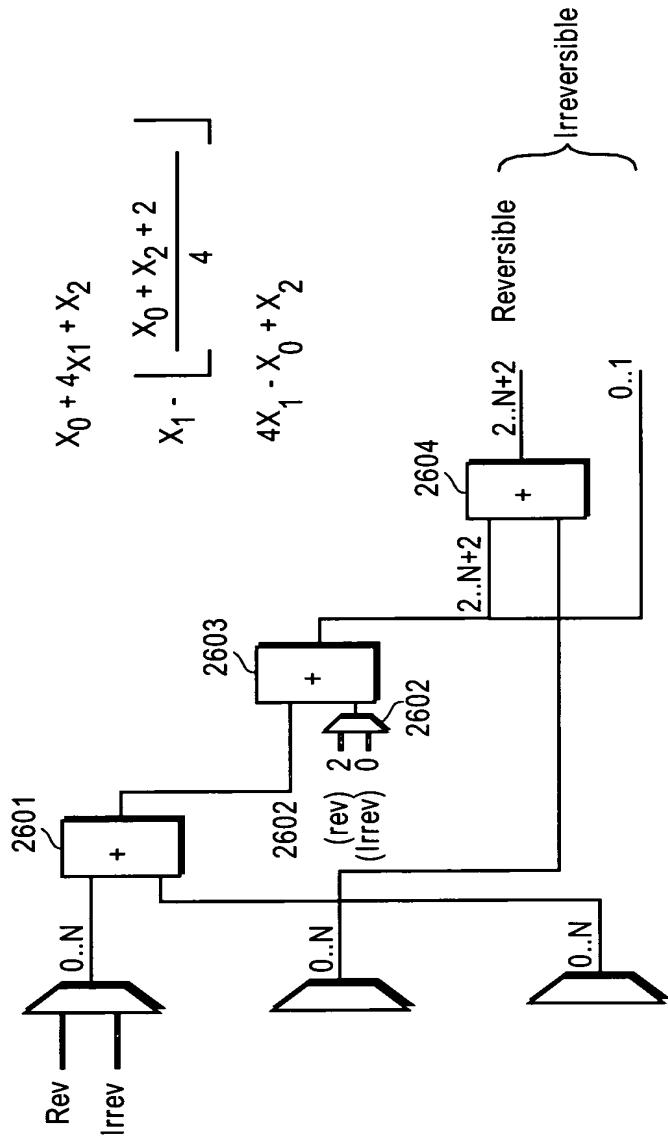


FIG. 26A

$$X_0 + 4X_1 + X_2$$
$$X_1 - \left[\frac{X_0 + X_2 + 2}{4} \right]$$
$$4X_1 - X_0 + X_2$$

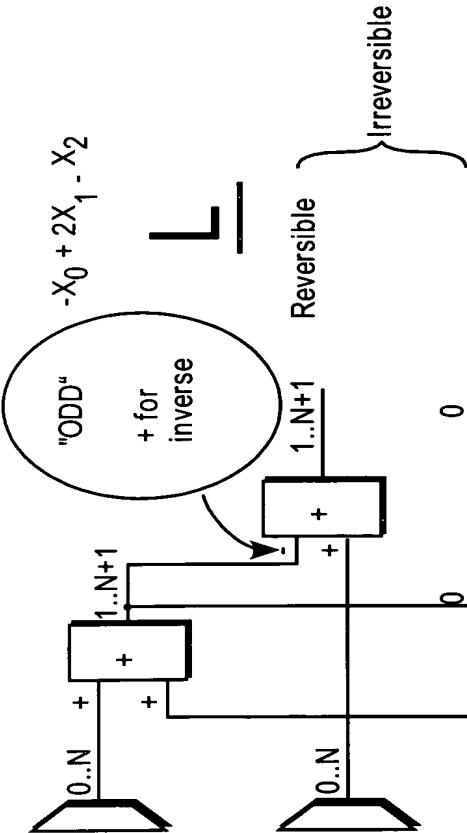


FIG. 25B

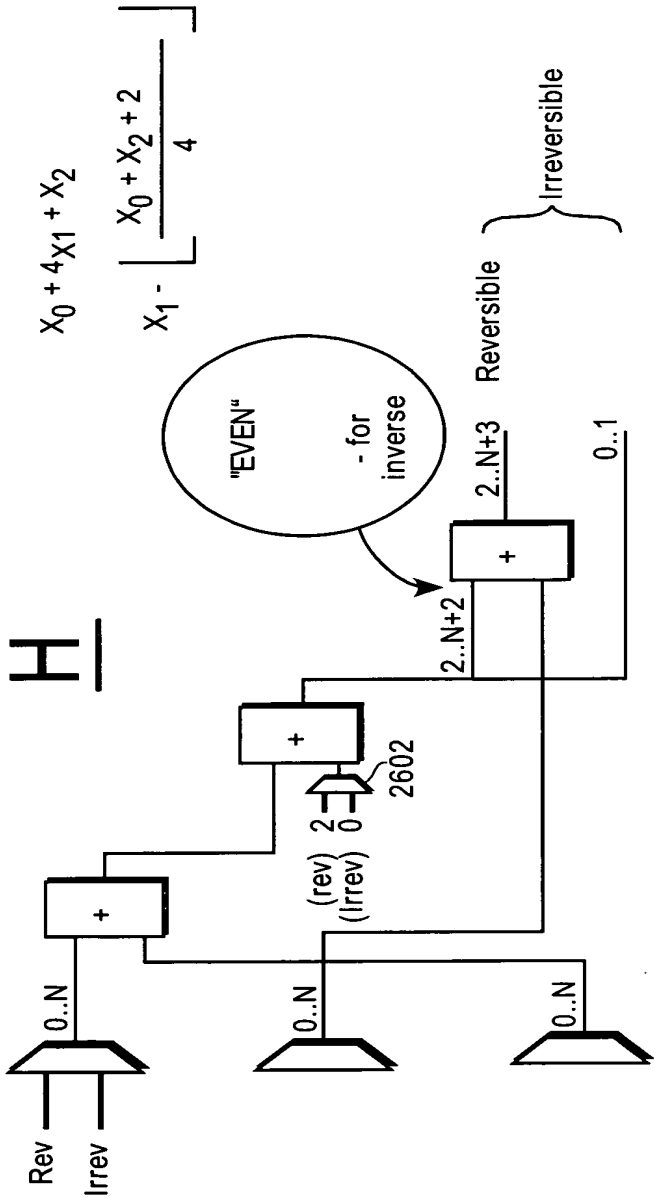


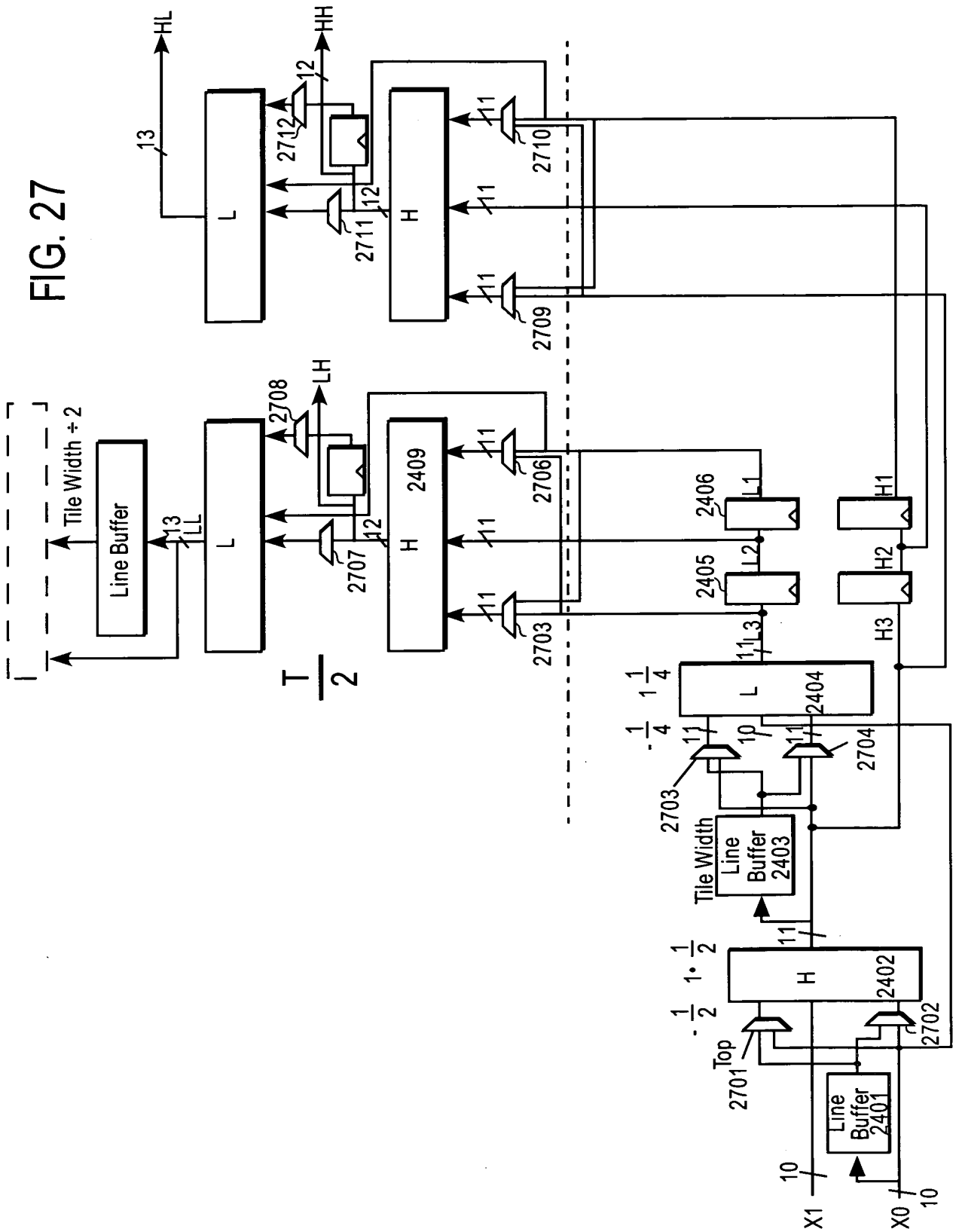
FIG. 26B

H

$$X_0 + 4X_1 + X_2$$
$$X_1 - \left[\frac{X_0 + X_2 + 2}{4} \right]$$

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FIG. 27



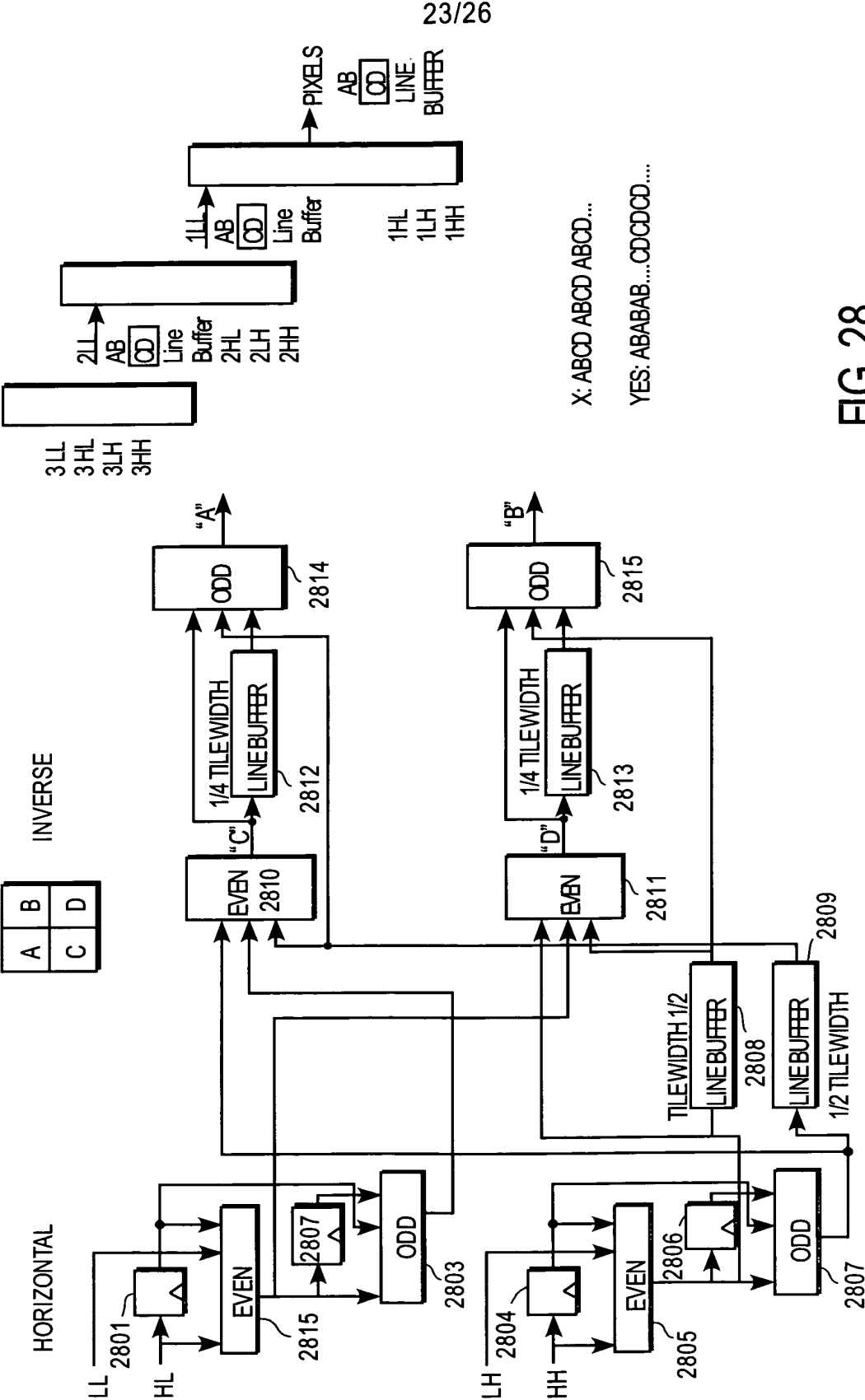


FIG. 28

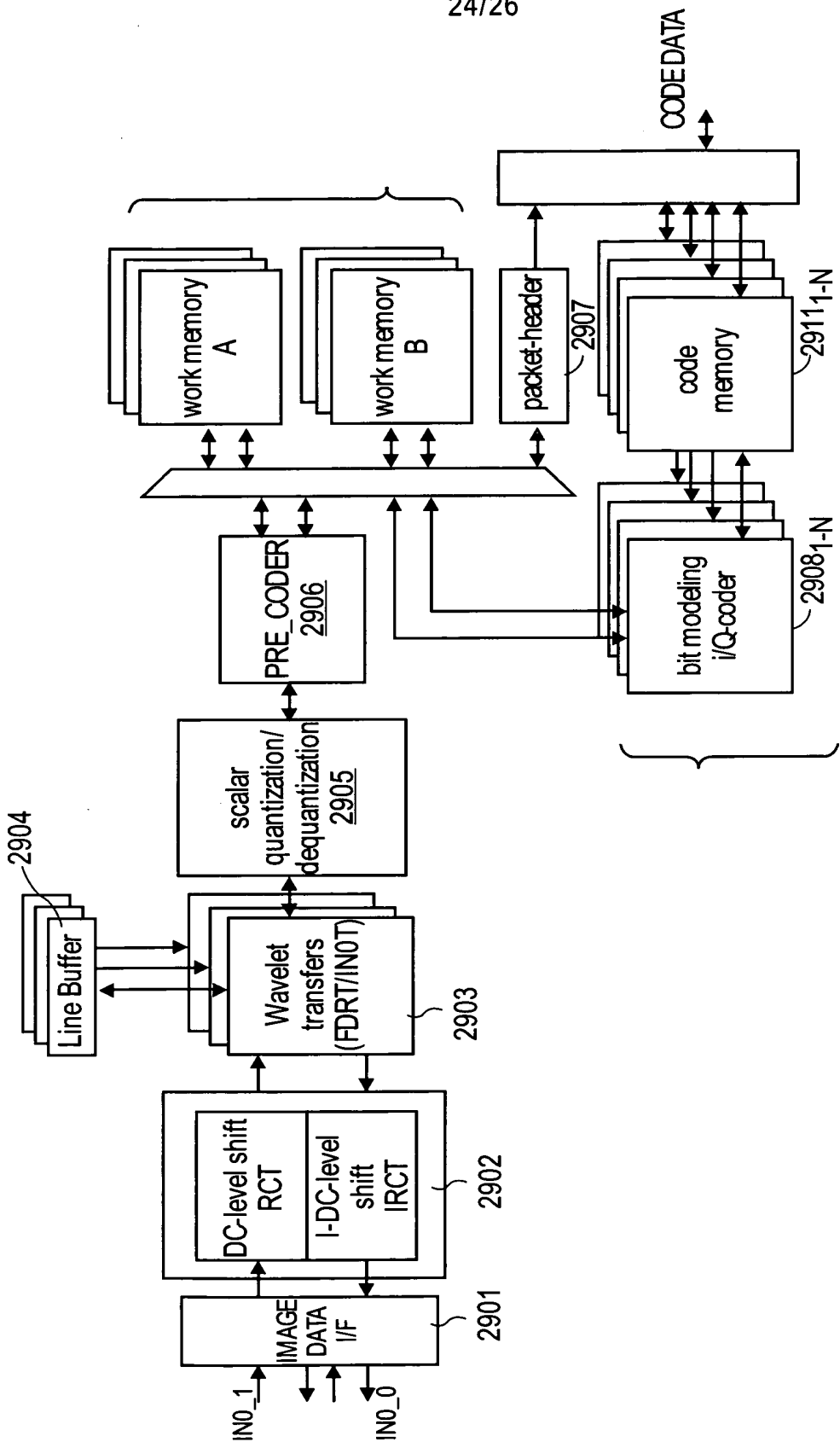


FIG. 29

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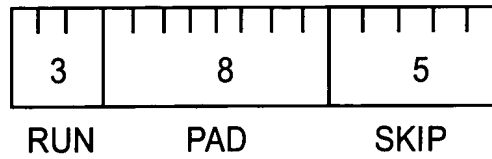


FIG. 30

8x8 region

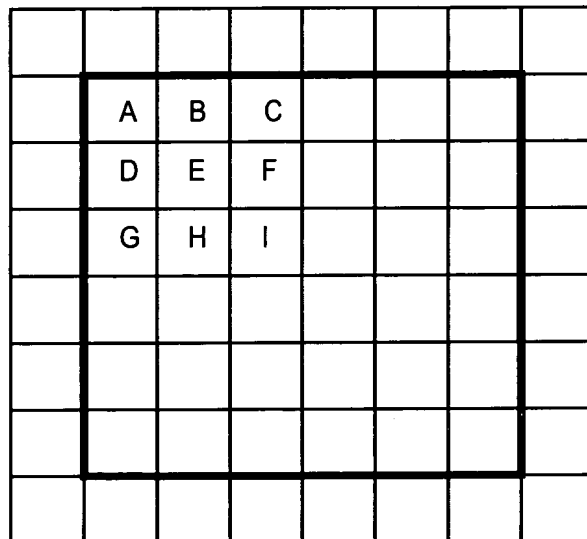


FIG. 31

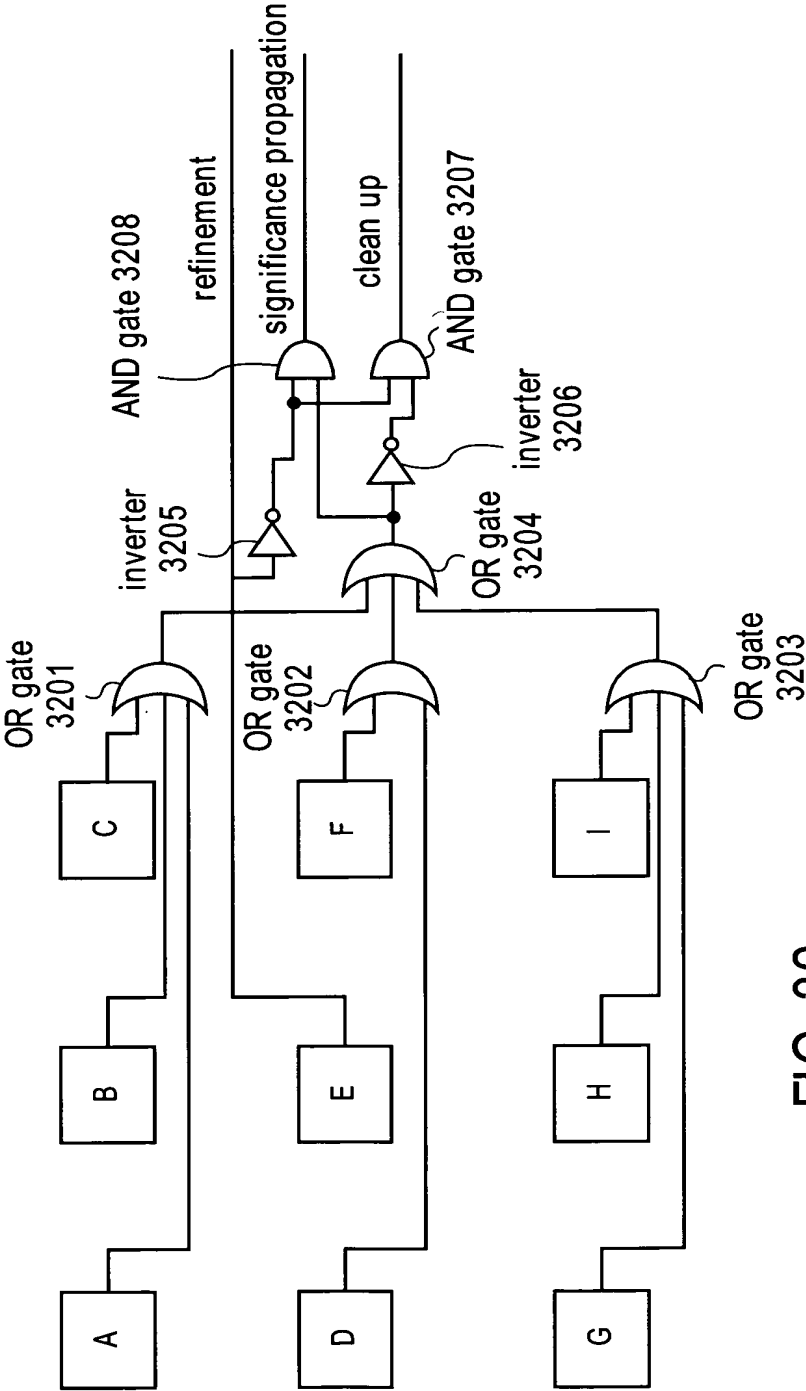


FIG. 32